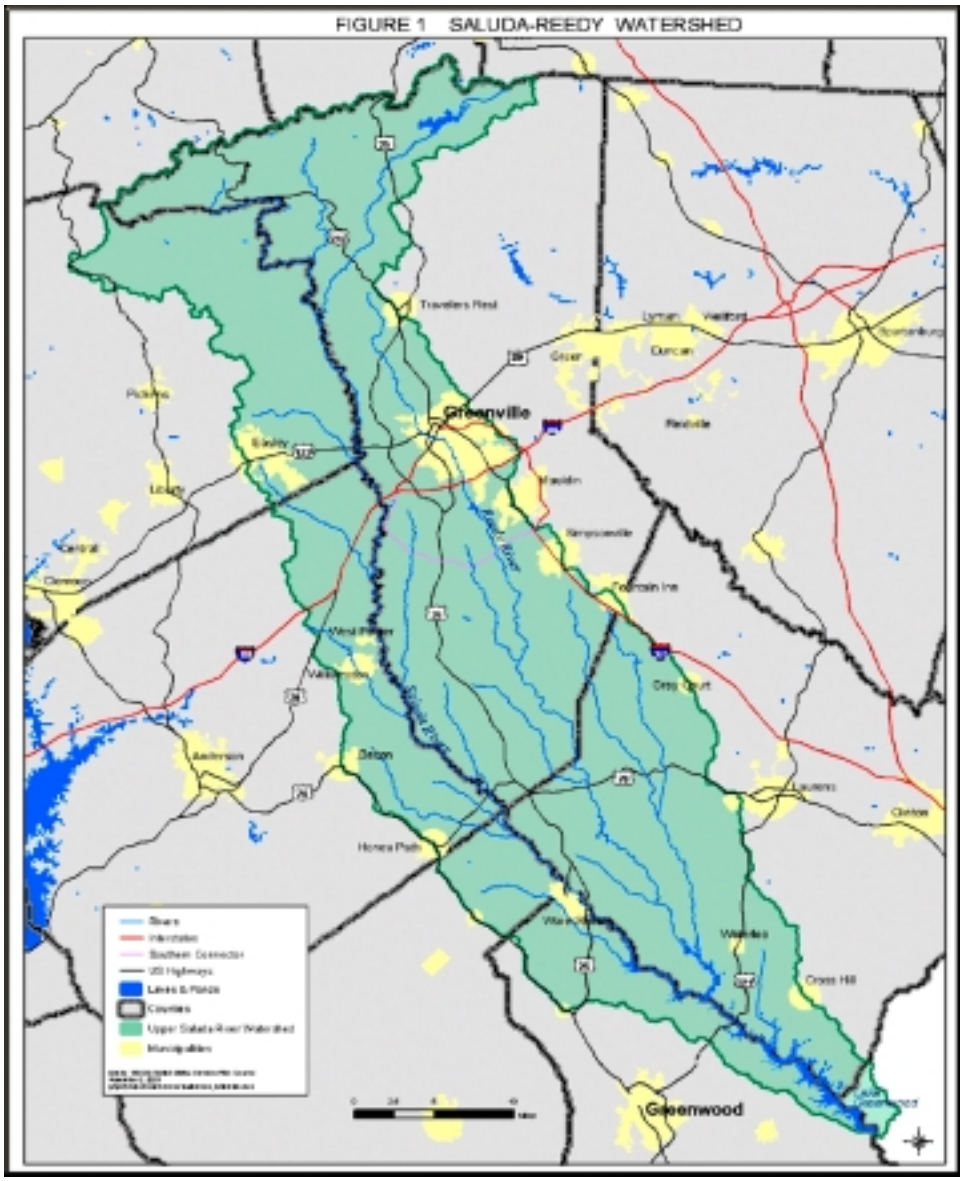
SC Water News

Winter 03 - Spring 04

Water Center Joins Saluda-Reedy Watershed Consortium



Continued explosive growth south and west of Greenville is causing the expansion of wastewater systems and urban storm-water impacts in areas of the watershed not previously degraded. At an alarming rate, suburban development is sprawling further downstream along the Reedy. Likewise, the landscape of the Saluda portion of the watershed west of the urban center is rapidly being transformed into a mosaic of suburban and commercial uses. Now the Upstate region is recognizing the very real limits of its water supplies and the necessity of inter-basin transfers in order to sustain its growth. All of these water resource conflicts are evolving within the Saluda-Reedy watershed above Lake Greenwood and directly threaten the economic and environmental sustainability of Greenwood and other downstream communities. Clearly, the economic and environmental policy systems in place have proven inadequate to equitably and effectively protect the resources distributed throughout the watershed.

The Saluda-Reedy Assessment project brings together an exceptional consortium of talent and organizations to focus on the issues and challenges affecting the Saluda-Reedy basin's future. This partnership includes truly outstanding resources of universities, government agencies, non-profit organizations, and private sector organizations. These partners have extensive hands-on experience with the specific resources

of the Saluda-Reedy Watershed and intimate knowledge of the policy issues and operating political dynamics. In the process of working on these and related issues for many years, the key project team members have gained an in depth understanding of the resources of the watershed and the tools needed to protect them.

Through the experience, insights and personal understanding of the environment of the Lake Greenwood watershed and the related policy issues, the project team has designed a powerful and comprehensive program of actions, demonstrations and recommendations for improving water quality in the Saluda-Reedy Watershed. The components of this program include the collection of the vital data necessary to understand the resources and economic dynamics in the watershed and to make informed decisions about environmental protection and economic policy. The project will also result in direct actions to identify, save, protect, and restore compromised streamside riparian ecosystems, with the objective of improving water quality. One of the strongest elements of the program is education, with particular emphasis on students of all ages, elected officials and agency leaders. Education will bring better understanding of the watershed and an improved decision-making process. A critical component of the program is a performance monitoring ombudsman focused on monitoring compliance with regulatory standards and taking action against violators, thereby improving the performance of both government agencies and the regulated community.

Finally, an integrated watershed management framework is incorporated into the program to assure that all of the work is tied together effectively and comprehensively.

There is overwhelming consensus in the scientific community that watershed problems must be addressed on a comprehensive, integrated basis. Yet this is rarely done. This project will accomplish that goal in the Saluda-Reedy Watershed and serve as a model for other rapidly developing watersheds throughout the United States.

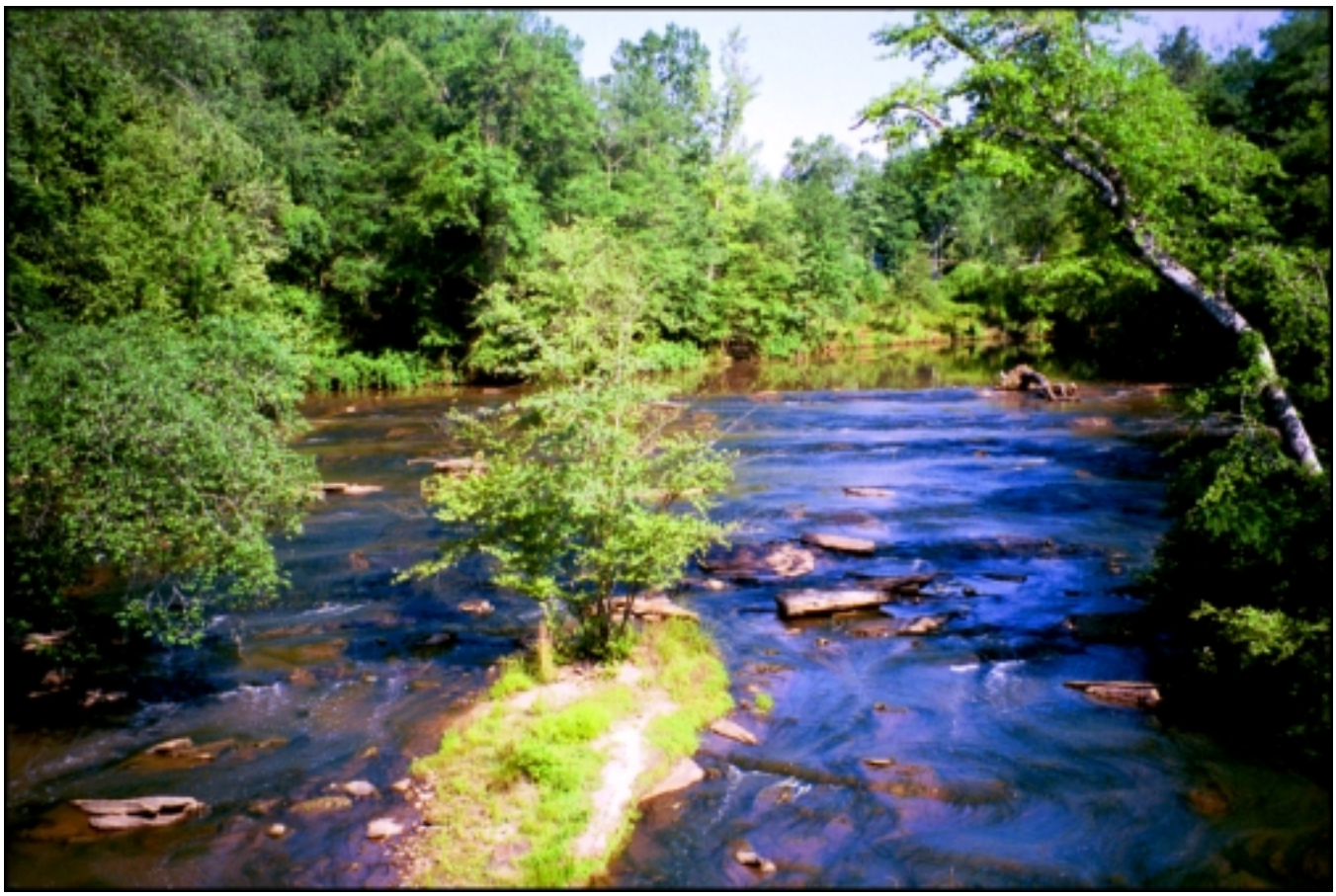
There have been notable and commendable efforts to protect and improve the Reedy and Saluda Rivers, but these initiatives have been poorly funded and sporadic. What has been lacking—and what is sorely needed—is a comprehensive assessment of the condition of the watershed, a determination of the causes of that condition, and the implementation of specific actions to improve that condition. That is the basic objective of this project.

The Saluda-Reedy Watershed Consortium has been formed in order to begin the assessment. Consortium members include:

- *Upstate Forever*
- *Clemson University: South Carolina Water Resources Center, Jim Self Center on the Future, Clemson Institute of Environmental Toxicology*
- *The Pinnacle Consulting Group, Inc.*
- *Friends of the Reedy River*
- *The Conestee Foundation*
- *South Carolina Department of Natural Resources*
- *SpectroTech, Inc.*
- *Furman University: Department of Economics and Business, Department of Earth and Environmental Sciences*
- *Lander University: Department of Biological Science*
- *Upper Savannah Land Trust*

Funding has been secured from a private foundation to initiate model building in three areas. The first will be an urban growth prediction model based upon a land cover classification and change detection for the watershed. The second will be a water quality model based upon historic data as well as data collected by SRWC scientists. The third is an economic model that will investigate the costs of providing clean water throughout the watershed. Funding has also been secured from Fujii Photofilm Corporation to carry out the educational component of this project, which includes passing information from the scientific community to policy-makers and stakeholders in order to enable more informed decision-making in the watershed.

Reedy River Educator Position Approved for Water Resources Center



The SCWRC is proud to announce a spin-off grant from its participation in the Saluda Reedy Water shed Consortium. After months of productive discussions with individuals from the South Carolina Department of Natural Resources, the DNR is using money from its Colonial Pipeline settlement to fund a watershed education program specifically targeted to the Reedy River. No individual source of funding can provide for all activities along the Reedy River. A partnership will have to harness existing science and education activities along the river along with initiatives from state and local government agencies and engage commitment from private organizations and area foundations. The creation of an Extension Reedy River Environmental Education Coordinator position who would work along the entire

watershed is now a reality. This position is supported with five years of funding funding allocated to the Environmental Education Program by State of South Carolina Natural Resource Trustees. The position will coordinate activities and leverage resources at the local level by working closely with existing Extension County Agents who have expertise in agriculture, environmental conservation, community development and youth development. The position will also assist in development of activities at the Lake Conestee Educational site and the Adair environmental education site. Activities will include working closely with Saluda Reedy Watershed Consortium members to help provide a conduit for their information to the public, helping to coordinate meetings and workshops with stakeholders in the watershed, and seeking additional support from private and governmental sources. The position will be the supervised by the Extension Service and the Strom Thurmond Institute' SC Water Resources Center.

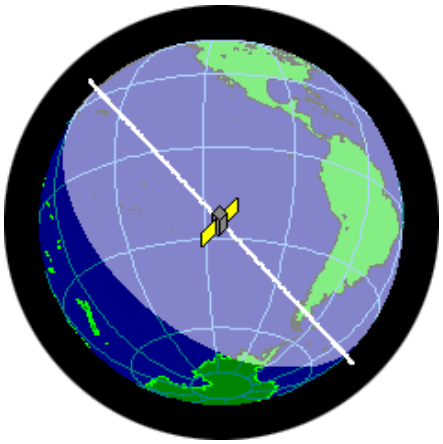
This partnership will be an exciting first step and catalyst for developing the initiative for integrating resources from numerous groups in support of the entire watershed basin. Clemson University will release faculty research time to address problems of concern for long-term success of Reedy River watershed management. Faculty expertise from a variety of disciplines will be brought together to address opportunities for research on the Reedy River. Faculty will seek additional external funds to support research and education programs of interest to the Reedy River stakeholders. We fully anticipate the position will be supported and ongoing beyond this initiation effort.

State-wide Research Competition Funds Two Projects

In February the SCWRC finished its review of proposals and selected two projects to be funded through the SCWRC research competition. A request for proposals was sent out in November and proposals were due in January, 2004. After the proposals were received by SCWRC they were all sent out for peer reviews by two scientists in the field of study presented in the proposals. Copies were also sent to the Advisory Board of SCWRC for their review and input. After all of the reviews were in, two projects were selected for funding for the 2004-2005 fiscal year. They are:

Title.
Modeling the Impact of Reservoir Management Regimes on Important Ecosystems in the Santee River Basin
Principal Investigator.
John M. Grego, Associate Professor of Statistics,
University of South Carolina.

Title:
Application of Emerging Technologies for Water Quality Monitoring and Data Transfer in the Saluda-Reedy Watershed
Principal investigators: Christopher Post, Assistant professor,
Stephen J. Klaine, Professor



Congratulations to the principal investigators and we look forward to seeing exciting results from these projects in another year!

Summer Intern to Assist with Water Policy Workshop

SCWRC welcomes Kyle Kelley as he begins a summer internship. Kyle is a rising senior in Political Science with aspirations of studying natural resources policy. Kyle will be helping to plan a water policy workshop sponsored by SCWRC, the Strom Thurmond Institute of Government and Public Affairs and the Georgia Water Resources Institute at Georgia Tech. The focus of the workshop will be to bring decision-makers from South Carolina and Georgia together to discuss the issues of inter-basin transfer, water quality and water quantity in the Savannah River Basin. Recent drought periods as well as increasing urbanization and water use inside and outside of the basin require thoughtful deliberation regarding use of and rights to the waters of the Savannah River. The recent release of recommendations from the South Carolina Water Law Review Committee as well as the failure of Georgia, Alabama and Florida to reach an agreement on the use of water from the two interstate water compacts, the Alabama-Coosa-Tallapoosa Compact (ACT) and the Apalachicola-Chattahoochee-Flint Compact (ACF), which were intended to hammer out agreements on how water resources, shared by the states, should be allocated between the three states, makes this workshop timely if not critical. The workshop is scheduled to be held in July, 2004.